Claims:

1. An interferometer, comprising at least a beamsplitter (10), at least one end reflector (11) for returning beams (S2, S3), and a set of reflectors (14, 15) for reflecting the beams (S2, S3) between the beamsplitter (10) and the end reflector (11) or the end reflectors, at least some of said set of reflectors (14, 15) being adapted to be rotatable around an axis (ω), **characterized** in that said set of reflectors comprises two angle reflectors (14, 15), constituted by plane reflectors, and that the said end reflector (11) is or the end reflectors are an angle reflector constituted by plane reflectors (11', 11"), and that an angle line of the end reflector (11) is or the angle lines of end reflectors are arranged perpendicular to an angle line of both of the angle reflectors (14, 15).

2. An interferometer as set forth in claim 1, **characterized** in that the angle reflector (14, 15) is constituted by two plane reflectors (14' and 14", 15' and 15"), between which is provided an angle typically of about 72-107 degrees, preferably of about 85-95 degrees, and most preferably of 90 degrees.

3. An interferometer as set forth in any of the preceding claims, **characterized** in that the beamsplitter (10) and the end reflector (11) or the end reflectors are mounted on a first rigid structure, and that the angle reflectors (14, 15) are mounted on the second rigid structure (16) which is adapted to be rotatable around an axis (ω).

4. An interferometer as set forth in claim 1, **characterized** in that said set of reflectors further comprises at least one pair of plane reflectors (12, 13).

5. An interferometer as set forth in claim 4, **characterized** in that the pair of plane reflectors has its plane reflectors (12, 13) arranged in such a way that the beams (S2, S3), coming from the beamsplitter (10) to the pair of plane reflectors, travel by way of the angle reflectors (14, 15) and hit the end reflector (11) perpendicularly to the angle line of the end reflector, the beams (S2, S3) reflected from the end reflector (11) returning over the same direction but laterally shifted back to the beamsplitter (10).

6. An interferometer as set forth in the claim 1, **characterized** in that the interferometer is arranged in such a way that

- a beam (S1) to be delivered to the interferometer is conductible to the beamsplitter (10), the beamsplitter (10) being arranged to divide the beam (S1) into two beams, namely the first beam (S2) and the second beam (S3),
- the first beam (S2) is arranged to be reflected from the beamsplitter (10) to the first angle reflector (15) and further towards the end reflector (11), and to return from the end reflector (11) over the same direction but laterally shifted back to the beamsplitter (10),
- the second beam (S3) is arranged to pass through the beamsplitter (10) and to advance to the second angle reflector (14) and further towards the end reflector (11), and to return over the same direction but laterally shifted back to the beamsplitter (10), and that
- the beamsplitter (10) is arranged to combine the first (S2) and second (S3) beams returning from the end reflector (11) for a single beam (S4) or a single beam (S5).

7. An interferometer as set forth in the claim 4, **characterized** in that the interferometer is arranged in such a way that

- a beam (S1) to be delivered to the interferometer is conductible to the beamsplitter (10), the beamsplitter (10) being arranged to divide the beam (S1) into two beams, namely the first beam (S2) and the second beam (S3),
- the first beam (S2) is arranged to be reflected from the beamsplitter (10) to the first plane reflector (13), from the first plane reflector to the first angle reflector (15), from the first angle reflector (15) towards the end reflector (11), and to return from the end reflector (11) over same direction but laterally shifted back to the beamsplitter (10),
- the second beam (S3) is arranged to pass through the beamsplitter (10) and to advance to the second plane reflector (12) and to reflect from the second plane (12) reflector to the second angle reflector (14), from the second angle reflector (14) towards the end reflector (11), and to return from the end reflector (11) over same direction but laterally shifted back to the beamsplitter (10),
- the beamsplitter (10) is arranged to combine the first (S2) and second (S3) beams returning from the end reflector (11) for a single beam (S4) or a single beam (S5).

8. An interferometer as set forth in claim 1, **characterized** in that at least some of the reflectors are produced by replication.

9. An interferometer as set forth in claim 8, **characterized** in that the said two angle reflectors (14, 15) are formed by arranging into a one solid body four plane surface such that the first two of said plane surfaces are perpendicular to each other and the third and fourth of said plane surfaces are perpendicular to each other, and that a reflecting surface is produced to said plane surfaces by replication.

10. A method in an interferometer, wherein optical beams are guided using at least two angle reflectors (14, 15), constituted by plane reflectors, and at least one end reflector (11) constituted by plane reflectors (11', 11''), and wherein an angle line of the end reflector (11) is or end reflectors are arranged perpendicular to an angle line of both of the angle reflectors (14, 15).

11. An analyzer, comprising an interferometer, comprising at least a beamsplitter (10), at least one end reflector (11) for returning beams (S2, S3), and a set of reflectors (14, 15) for reflecting the beams (S2, S3) between the beamsplitter (10) and the end reflector (11) or the end reflectors, at least some of said set of reflectors (14, 15) being adapted to be rotatable around an axis (ω), **characterized** in that said set of reflectors comprises two angle reflectors (14, 15), constituted by plane reflectors, and that the said end reflector (11) is or the end reflectors are an angle reflector constituted by plane reflectors (11', 11''), and that an angle line of the end reflector (11) is or the angle lines of end reflectors are arranged perpendicular to an angle line of both of the angle reflectors (14, 15).